

MISSOURI CONSERVATIONIST

VOLUME 85, ISSUE 12, DECEMBER 2024
SERVING NATURE & YOU



JOIN THE *CHRISTMAS BIRD COUNT*

Do you know your birds well by sight and sound? Join the National Audubon Society's Christmas Bird Count from Dec. 14 through Jan. 5, 2025, and add to a nationwide citizen science project! This early-winter bird census involves thousands of volunteers gathering data on winter bird populations. There are over 20 Christmas Bird Counts in Missouri alone.

To learn more, visit tinyurl.com/ybropbvq



BIRDS NEED OUR HELP

North American bird populations are declining. Here's what you can do to help:

Plant native plants, shrubs, and trees. Native plants attract native insects, which provide the best food for birds and their young.

Make windows safer. To break up reflections and cut down on window strikes, install stickers, film, or screens to the outside of windows.

Be a citizen scientist. Learn your birds by sight and sound, record sightings on eBird, or join monitoring efforts.

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Gray Treefrog
Craig Alexander | via Flickr

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Nature photographers freeze the clock, capturing a memory.

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MISSOURI CONSERVATIONIST



ON THE COVER

Great blue heron

 **JACK BACKS**

Missouri Conservationist reader photo, submitted via Flickr.

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Inbox



Letters to the Editor

Submissions reflect readers' opinions and may be edited for length and clarity. Email Magazine@mdc.mo.gov or write to us:

MISSOURI
CONSERVATIONIST
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JEFFERSON CITY, MO 65102



Bold jumping spider

JUMPING FOR JUMPING SPIDERS

As a photography enthusiast, I've recently started taking macro photos of small creatures, such as insects and spiders. It's interesting to see how they look up-close, magnified a couple of times. My favorites have become jumping spiders. They are fascinating creatures. I thoroughly enjoyed your article *Life on a Thread* in the October issue [Page 22]. It was a very informative article with a lot of nice pictures. I had no idea there were so many different jumping spiders. Thanks for the article and keep up the good work producing such a beautiful magazine.

Doug Phillips Monett

Writing to heap praises on Matt Seek's fascinating and well-written article, *Life on a Thread*. Although I fall somewhere in the middle of the arachnophobe/arachnophile spectrum, Seek's light-hearted yet informative prose makes me want to learn more about these interesting little critters.

Dhana Broser via email

SOMETHING NEW AND EXCITING

I love getting my magazine in the mail every month. Each month's magazine has something new and exciting to read. I love reading *Nature Lab*.

It is always cool to read about research and how it helps nature. I also love *What Is It?* It is a fun little game to play,

and I learn something new. I started getting the magazine in July 2022, and one day in the future, I may look back at my magazines and reflect. I love the MDC magazines.

Kelvin J. Fisher, Jr. Lee's Summit

BEARS IN MISSOURI

I have always wanted to see a black bear in the wild and was surprised to hear that they are making a comeback in Missouri. It will be interesting to hear the results of the hair snares, which is a great system to collect bear DNA [*Nature Lab*, October, Page 4]. Will their return upset the current balance in the ecosystem? Thank you for all you do, and I will be keeping my eyes open for black bears.

Wesley Brown Garden City

According to MDC Furbearer Biologist Nate Bowersock, bears will not and are not upsetting Missouri's ecosystems. In fact, they are likely improving the ecosystem by dispersing seed, breaking up logs in search of insects, which increases the decomposition rates of downed logs, and cleaning up carrion.

— THE EDITORS



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Have a Question for a Commissioner?

Send a note using our online contact form at mdc.mo.gov/commissioners.

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The Missouri Department of Conservation protects and manages the fish, forest, and wildlife of the state. We facilitate and provide opportunity for all citizens to use, enjoy, and learn about these resources.



Want to see **your** photos in the *Missouri Conservationist*?

Share your photos on Flickr at
[flickr.com/groups/mdcreaderphotos-2025](https://www.flickr.com/groups/mdcreaderphotos-2025)
or email Readerphoto@mdc.mo.gov.



Each month, we select three reader photos to highlight and share on this page. This month, you'll find a larger selection of the best reader submitted photos from 2024 starting on Page 10. We can't wait to see what our readers capture next year!



Want another chance to see your photos next year?

➔ We plan to feature more great reader photos in 2025. Use the submission methods above to send us your best year-round pictures of native Missouri wildlife, flora, natural scenery, and friends and family engaged in outdoor activities. Please include where the photo was taken and what it depicts.

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Up Front

✳ Without question, one of the most popular parts of the magazine for our readers is the amazing photography that captures Missouri's beautiful flora, fauna, and landscapes. This month's issue is all about capturing experiences of awe and sharing it. Awe, or the overview effect, is a profound emotional experience that arises when encountering the vastness and beauty of the natural world. The sense of awe has been used to describe the experience of astronauts when viewing earth from space. This sense of awe can come from the vastness of a landscape, the colors from a setting sun, the intricate details of steam from a blue jay's beak captured with a camera (see Page 13), or the intent stare of an owl in flight. Photos of hunting, fishing, and time in the outdoors adorn Missouri homes and offices. Freezing the moment allows us to save the awe.

This experience connects us to something greater than ourselves as we reflect on our place in the world and develop a greater appreciation for nature. As has been discussed in previous columns, nature provides so many benefits, not the least of which is to our physical and mental well-being. There is a growing body of research suggesting the experience of awe is the key driver of the emotional benefits. Personally, time in the outdoors is critical to my mental well-being, which is captured in this recent youth waterfowl hunt with my son, the awe forever captured in this photo.



Jason Sumners

JASON SUMNERS, DIRECTOR
JASON.SUMNERS@MDC.MO.GOV

Nature LAB^{at} WORK

by Angie Daly Morfeld

The Missouri Department of Conservation team is diverse and dedicated to conserving, protecting, and improving our fish, forest, and wildlife resources.

Janet Haslerig AVIAN ECOLOGIST

✳ As an avian ecologist with MDC, Janet Haslerig is the recovery leader for bald eagles and interior least terns. She serves as the state coordinator for the North American Breeding Bird Survey and Eagle Watch Program. She is the principal investigator for a long-term songbird research project in the Ozarks and a bald eagle monitoring study at the Atchison Renewable Energy Center. She also serves as the agency's reviewer for all wind and solar projects as they pertain to raptors and birds.

A TYPICAL DAY

"No two days are the same," Haslerig said. "As much as I like to plan my day, my days are often filled with challenging, unexpected, exciting, and difficult tasks. My day may start with checking emails and end with attending a symposium or exploring a trail, looking and listening for birds."

Her Education

- Bachelor's degree, Middle Tennessee State University: animal science
- Master's degree, University of Missouri-Columbia: wildlife management (population ecology of giant Canada geese)
- Doctoral degree, University of Florida: wildlife ecology (human and wildlife conflicts in Tanzania)



(Above) Haslerig takes to the sky each spring, flying in a helicopter to monitor the bald eagle nests reported through the Eagle Watch Program. "There is nothing like an eagle-eye view of a nest from above," Haslerig said.

(Left) Haslerig holds an adult eagle that is ready for release following a fitting for a GPS transmitter and a blood draw to test for diseases and overall health. The eagle is part of an MDC-funded research project designed to better understand eagle behavior and risks associated with wind turbines in northwest Missouri. As part of the project, four adult and four nesting bald eagles are captured, banded, tagged with telemetry, and released.

NOTABLE PROJECTS

Currently, there is a bald eagle monitoring project in northwest Atchison County where a team of world-renown researchers trap adult and immature eagles and put GPS transmitters on them to track their movements through several wind farms in northwest Missouri.

"I have the rare opportunity and pleasure of lending assistance with this work, including holding the eagles," Haslerig said.

In addition, the Eagle Watch Program, which started in 2018, is a citizen science program where individuals volunteer to monitor activity of nesting bald eagles during breeding season.

"Volunteers spend countless hours across the state monitoring one, five, or 20 nests," Haslerig said. "The excitement and joy of watching an eaglet learn to fly and leave the nest is exhilarating."

The volunteer-led ground observations are supplemented by an annual aerial survey conducted by Haslerig each spring.

HOW YOU CAN HELP

Volunteer for the Eagle Watch Program and the Breeding Bird Survey, report injured or dead raptors, advocate for proper placement of wind and solar facilities, consider using non-lead ammunition, reduce bird collisions at your home and office, brake for wildlife, and be aware of the impacts — both positive and negative — we have on our natural resources.

In Brief

News and updates from MDC



ENJOY WINTER TROUT FISHING

NOW IS YOUR CHANCE
TO CATCH A RAINBOW
AT ONE OF MDC'S
STOCKED LAKES

➔ MDC staff have stocked about 80,000 rainbow trout in more than 40 community lakes around the state for winter trout fishing. Many of these areas allow anglers to harvest trout as soon as they are stocked, while others are catch-and-release until Feb. 1.

The daily limit for catch-and-keep at these locations is four trout with no length limit. All Missouri residents over age 15 and under age 65 must have a fishing permit. All nonresidents over age 15 must have a fishing permit. To keep trout, anglers of all ages must have a Missouri trout permit.

Buy permits from vendors around the state or online at mdc.mo.gov/buypermits. Once purchased, permits may be carried electronically through our free mobile apps, MO Hunting and MO Fishing, available for download through Google Play for Android devices or the App Store for Apple devices.

For more information about winter trout season and to find locations near you, visit short.mdc.mo.gov/ZF3.

DISCOVER NATURE THROUGH EAGLE DAYS

MDC encourages Missourians to discover nature this winter through Eagle Days events around the state or by watching bald eagles on your own. Our big rivers, many lakes, and abundant wetlands make the Show-Me state one of the leading lower 48 states for bald eagle viewing. Each fall, thousands of these great birds migrate south from their nesting range in Canada and the Great Lakes states to hunt in Missouri. Eagles take up residence wherever they find open water and plentiful food. More than 2,000 bald eagles are typically reported in Missouri during winter.

Watch for eagles perched in large trees along the water's edge. Early in the morning you can see them flying and fishing. Be sure to dress for winter weather and don't forget cameras and binoculars.

MDC is offering various Eagle Days events around the state. Some will include live eagle programs, exhibits, activities, videos, and guides with spotting scopes. Some require registration.

Here are some hot spots for winter eagle viewing on your own:

- Eagle Bluffs Conservation Area on Route K, southwest of Columbia
- Lake of the Ozarks at Bagnell Dam Access, east of Bagnell
- Lock and Dam 20 in Canton
- Lock and Dam 24 at Clarksville
- Lock and Dam 25, east of Winfield
- Loess Bluffs National Wildlife Refuge, south of Mound City
- Mingo National Wildlife Refuge, northwest of Puxico
- Moses Eagle Park in Stella
- Old Chain of Rocks Bridge, south of I-270 off Riverview Drive in St. Louis
- Riverlands Environmental Demonstration Area, east of West Alton
- Schell-Osage Conservation Area, north of El Dorado Springs
- Smithville Lake, north of Kansas City
- Stockton Lake, near Stockton
- Swan Lake National Wildlife Refuge, south of Sumner
- Table Rock Lake and Shepherd of the Hills Fish Hatchery, southwest of Branson
- Truman Reservoir, west of Warsaw.

For more information on Eagle Days events, visit short.mdc.mo.gov/Zt6.



Ask MDC

Got a Question for Ask MDC?

Send it to AskMDC@mdc.mo.gov
or call 573-522-4115, ext. 3848.

Q: I took this picture today at Mingo National Wildlife Refuge in Stoddard County. Is this a Wilson's snipe?

➔ Yes, this is a Wilson's snipe. Snipe forage at marshes, swamps, wet pastures, crop stubble, and drainage ditches for insects, crustaceans, and vegetation. As they poke their bills repeatedly into the mud, probing for invertebrates, their bobbing heads look something like a sewing machine. Like the related woodcock, their bills have a sensitive, flexible tip that can open to grip food while the rest of the bill remains closed. You can learn more about these amazing birds at short.mdc.mo.gov/4zT.



Wilson's snipe

Q: I have been looking at some cultivars of mulberry and considering planting a few trees on my property in addition to the native red mulberry (*Morus rubra*) we already have. I've also seen warnings about the invasive nature of white mulberry (*Morus alba*). Many cultivars, however, are labeled as hybrids. For instance, Illinois everbearing is variably claimed to be either *Morus alba* x *rubra* or simply *Morus rubra*. Do these hybrid cultivars pose the same threat to native

mulberry populations that white mulberry does? Or can I safely plant some Illinois everbearing and similar cultivars without negative ecological impact?

➔ Unfortunately, white mulberry is known to be terribly invasive. As conservationists, we do not recommend that you plant it or a hybridized cross of it. There have been several examples in which certain hybrids were thought to be sterile only to revert to the more aggressive species. Bradford pear is a good example; it was once considered sterile until it crossed with another sterile hybrid and produced fertile offspring.

"Sooner or later, these hybrid products end up being a problem, too," Missouri State



Green frog

Botanist Malissa Briggler said. "For this reason, we recommend landowners plant only native red mulberry."

Q: What species of frog is this? It lives in an old cattle watering spot. The property has various marshes on it that are fed by a powerful spring.

➔ This is a green frog (*Lithobates clamitans*). A member of the true frog family, Ranidae, this medium-sized frog varies in color from green to greenish-tan to brown. But the upper lip

and head are usually green.

These solitary frogs often live in small stream habitats where each deep pool is home to a single adult. When disturbed, a green frog quickly will jump in the water, often emitting a high-pitched squawk as it jumps.

The green frog looks like the American bullfrog but is smaller and has a ridge of skin along the sides of the back, from behind the eye to midbody, that is not found on bullfrogs. For more information on Missouri's native green frogs, visit short.mdc.mo.gov/4z5.



Brandon Cotter

BOONE COUNTY
CONSERVATION AGENT

offers this month's

AGENT ADVICE

Winter birdwatching in Missouri offers a chance to see resident species and migratory visitors. To ensure an enjoyable experience, dress warmly in layers and don't forget your boots and gloves on your way out the door. Prime times for birdwatching are early mornings or late in the day when birds are most active. Look around bird feeders, water sources, evergreen trees, and open fields for species like chickadees, juncos, nuthatches, and visiting waterfowl. Binoculars, a bird guide, and apps like Merlin can enhance your experience. Add feeders and heated water baths to attract birds to your own backyard. Be patient, keep a birding log, and enjoy the beauty of winter wildlife.

What IS it?

Can you
guess this
month's
natural
wonder?

*The answer is on
Page 9.*





BERNADETTE'S CATCH-ALL MUFFINS

Whether you are planning a brunch for holiday company or just want to shake-up your morning routine, this muffin is the perfect addition. Not only is it nutritious, but the recipe can be adjusted to fit anyone's taste buds. Add a few leftover nuts here, some raisins or dried fruit there, substitute rolled oats or wheat for part of the flour ... you cannot mess these up!

Makes about 20 muffins



This recipe is from *Cooking Wild in Missouri* by Bernadette Dryden, available for \$16 at most MDC nature centers and online at mdcnatureshop.com.

INGREDIENTS:

- 1½ cups sugar
- 2⅓ cups flour
- 2½ teaspoons baking soda, sifted
- ½ teaspoon salt
- ½ cup oil
- 2 eggs
- 2 cups buttermilk
- 1 cup boiling water
- 3 cups wheat bran
- 1 cup golden raisins (or part dried cranberries, dates, or figs)
- 1 cup pecans or hickory nuts (toasted lightly, preferably)

BLEND first four ingredients (through salt) together in one bowl. Blend next three ingredients (oil through buttermilk) in another. Then gently mix all seven together.

POUR water over bran and fruit in a separate bowl; let stand a few minutes. Stir and gently combine with the batter. Stir in nuts. Pour into medium-sized muffin tins lined with paper cups. (Batter also will keep in refrigerator for at least a week.)

BAKE in a 400-degree oven for 15 to 20 minutes or until a toothpick inserted in muffin's center comes out clean. Turn muffins onto a rack to cool.

GIVE NATURE-THEMED GIFTS THIS HOLIDAY SEASON

Have nature lovers on your holiday gift list? MDC's online Nature Shop has you covered. Offerings include the ever-popular *Natural Events Calendar*, a variety of books, and more.

Holiday shoppers can also skip retail stores and visit one of our nature centers — located in Kirkwood, Cape Girardeau, Springfield, Kansas City, Blue Springs, and Jefferson City — for an array of reasonably priced, nature-themed holiday gifts. To find a nature center closest to you, visit short.mdc.mo.gov/4JV.

Our holiday gift offerings include:

2025 *Natural Events Calendar* (\$9) — This annual favorite has amazing images of native animals, plants, and places, along with phases of the moon, holidays and days of recognition, daily notes about natural events, and more.

Nature Notes Coneflower Journal (\$8) — It includes simple tips to get started drawing or writing about nature. It is spiral bound with plenty of blank pages.

Cooking Wild in Missouri (\$16) — This favorite cookbook features more than 100 recipes for native game, fish, fruits, nuts, and mushrooms.

Strange but True (\$8.95) — This fun offering was adapted from the pages of MDC's *Xplor* magazine and features 350 weird and wild facts and illustrations about creatures that inhabit Missouri. Fun for all ages.

A Paddlers Guide to Missouri (\$9) — This newly revised edition makes a great gift for canoeists, kayakers, and floaters with color photos, maps, and descriptions of 54 rivers and streams. The 102-page, spiral-bound guide includes trip planning tips, equipment recommendations, paddling pointers, and more. New to the 2023 edition are maps of the upper Mississippi River from Hannibal to St. Louis and an expanded section on the Big River.

Owl & Nuthatches Notecard Sets (\$8) — This is great for gift giving. Each set includes 12 cards of either a barred owl or a pair of brown-headed nuthatch birds.

Missouri's Wild Mushrooms (\$26) — This book is a great guide for hunting, identifying, and cooking the state's most common mushrooms.

Discover Missouri Natural Areas, Second Edition (\$19.95) — This handy reference helps nature lovers experience 50 great examples of our state's natural heritage. The new edition features updated maps, text, references, and scientific names.

The Amphibians and Reptiles of Missouri, Third Edition (\$29) — This classic book has been updated and expanded to a 522-page illustrated guide that provides descriptions, distribution, habitats, habits, breeding, and other information on nearly 130 species of native salamanders, toads, frogs, turtles, lizards, and snakes.

Purchase these and other items at our nature centers, through our online Nature Shop at mdcnatureshop.com or by calling 877-521-8632. Order early in anticipation of slower shipping deliveries. Applicable tax, shipping, and handling costs will apply.

GIFT HUNTING AND FISHING PERMITS

Buy hunting and fishing permits for the hunters and anglers on your holiday gift list. Permits are available from vendors around the state and online at mdc.mo.gov/buypermits. Once purchased, permits may be carried electronically through our free mobile apps, MO Hunting and MO Fishing, available for download through Google Play for Android devices or the App Store for Apple devices.



WHAT IS IT? MALE GREEN-WINGED TEAL

The adult male green-winged teal has a rusty head, a green band from its eye to the back of its neck, and a vertical white stripe on the side of its upper breast. The male teal's call is loud and hoarse, as opposed to the female's high, shrill whistle. Belonging to a group of ducks called dabblers, teal rarely dive underwater. Instead, they duck their heads below the surface to forage, their tails pointed skyward.

STOPPING TIME

NATURE PHOTOGRAPHERS
FREEZE THE CLOCK,
CAPTURING A MEMORY

Photography is an important element to this magazine. Our dedicated photographers — David Stonner and Noppadol Paothong — travel across Missouri year-round capturing images in nature, both of flora and fauna, to enhance the words that fill our pages. Sometimes their images are the star, telling the story with very few words, or in some cases, without any words at all.

They are professional time-stoppers. With each click of their cameras, they take each of us on a journey — to a frozen moment in time.

Cameras are quite magical that way.

We turn these pages over to you, our readers, to delight us with your magic, when you stopped time with just one click. We challenge you with each issue to get out and discover nature. So now is the time to show us — what have you discovered?

Drury, Missouri

Kevin Wonders

via website submission





**Cedar
Waxwing**
Doug Wallace
via Flickr

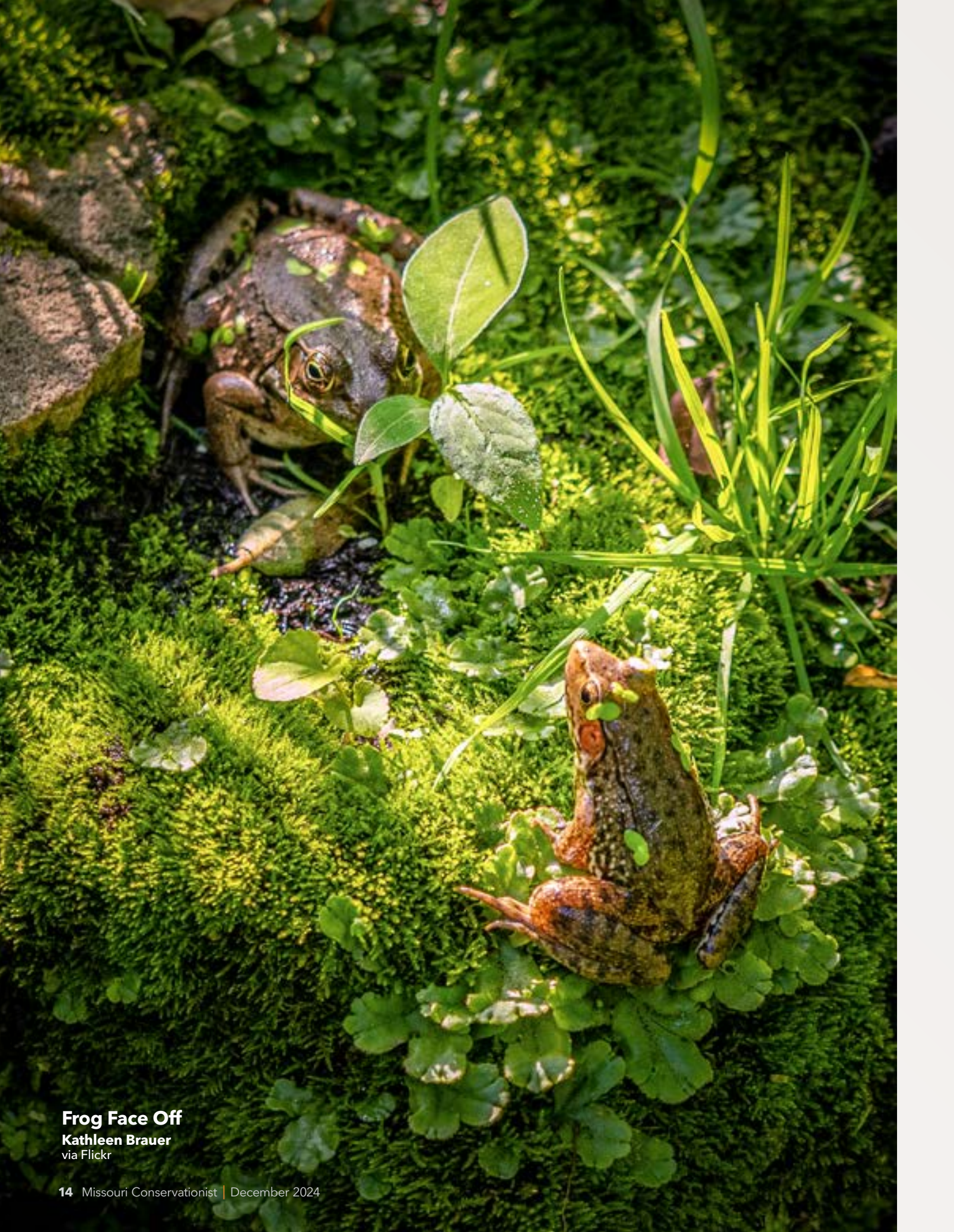


**Yellow-Crowned
Night-Heron**
Joe Wilson
via Flickr



Blue Jay
Rob Chance
via Flickr





Frog Face Off
Kathleen Brauer
via Flickr



American Goldfinch Fight

Bruce Dawson
via Flickr



Lotus Plant Seed Pod

Mark Putnam
via Flickr





“Only a
photographer
can stop the
time. Just by
one click.”

—BIJU KARAKKONAM,
NATURE AND WILDLIFE
PHOTOGRAPHER

Barred Owl

Rick Wilhoit

via Flickr

**Sunrise in
Southwest
Missouri**
Seth Jackson
via Flickr





**Rue
Anemone**
Robert Charity
via Flickr

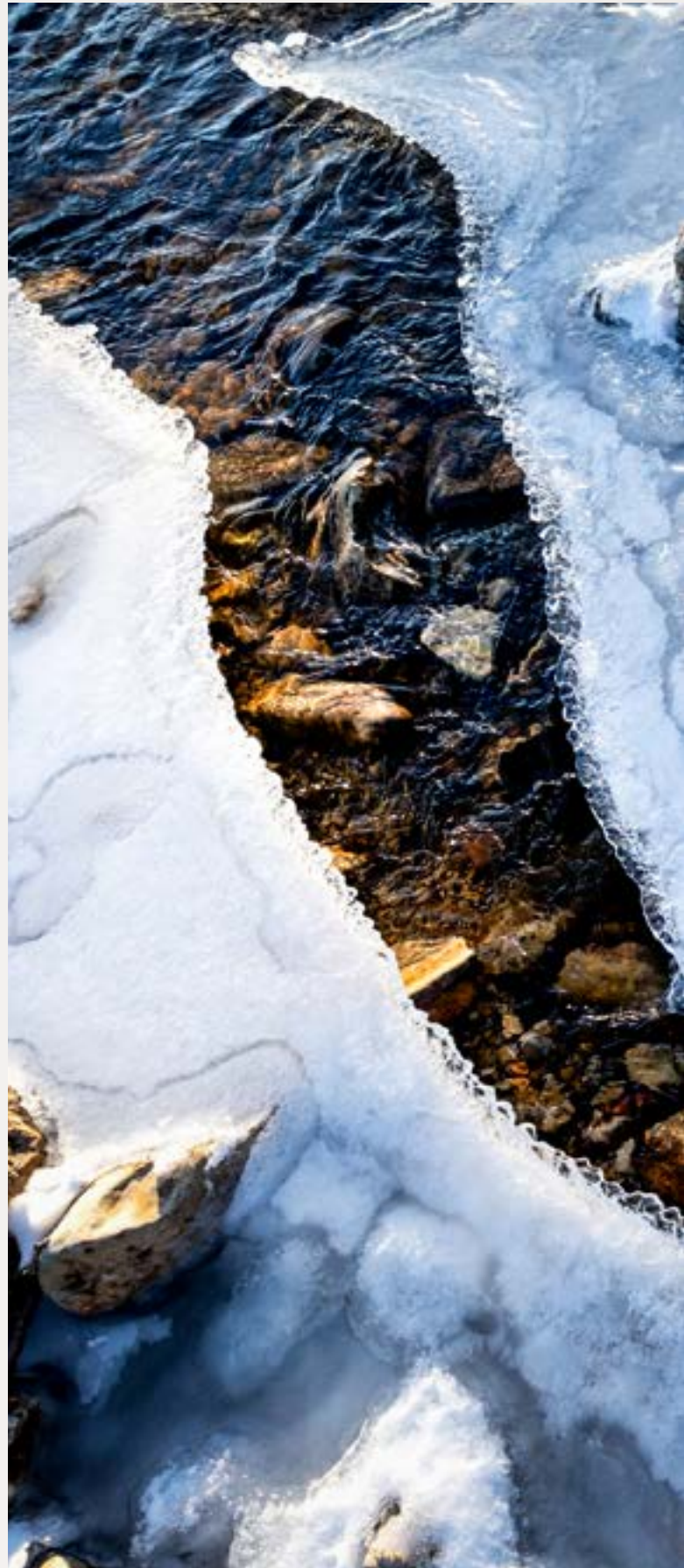


**Ruby-
Crowned
Kinglet**
Craig Alexander
via Flickr

**Winter in
the Ozarks**
**Angelique
McVey**
via Flickr



Great Blue Heron
Sharon Takade
via Flickr





Coyote
Bill G. Pinnell
via Flickr



Woodchuck
Brad Wilson
via Flickr





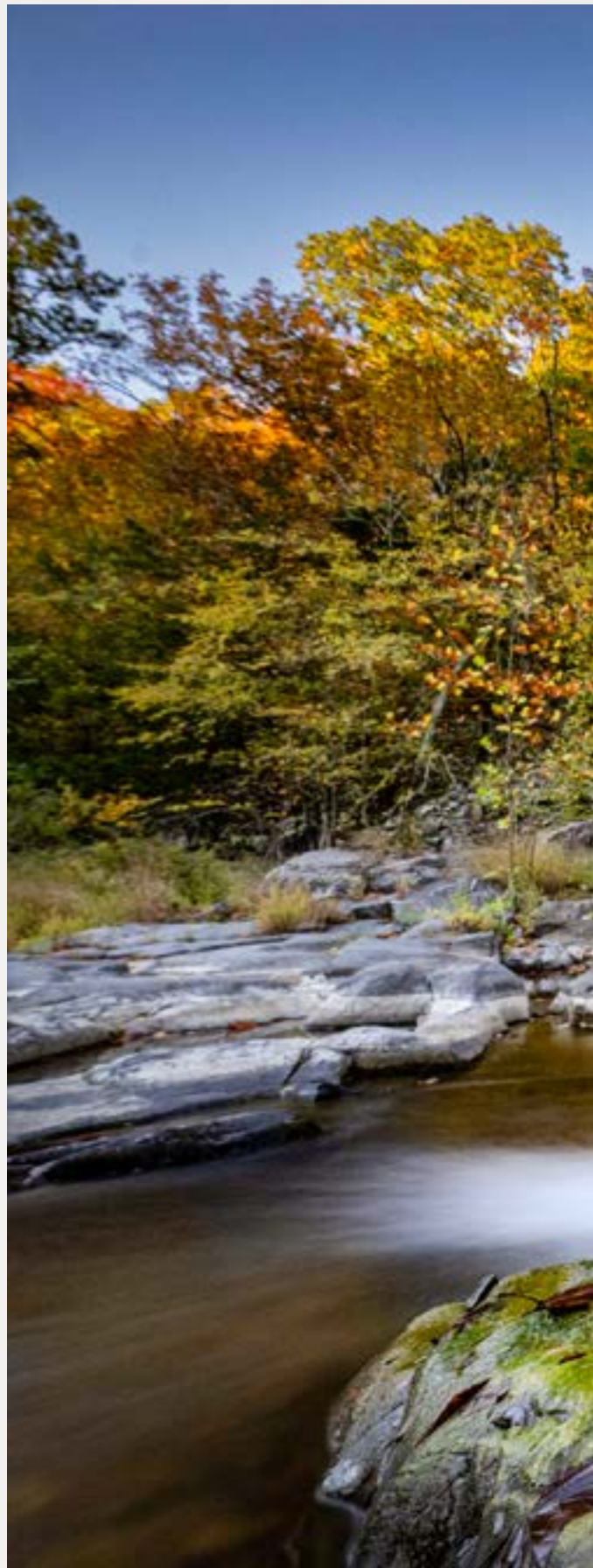
Weevil
Christian Gott
via Flickr

Bullsnake
Smashtonlee05
via Flickr

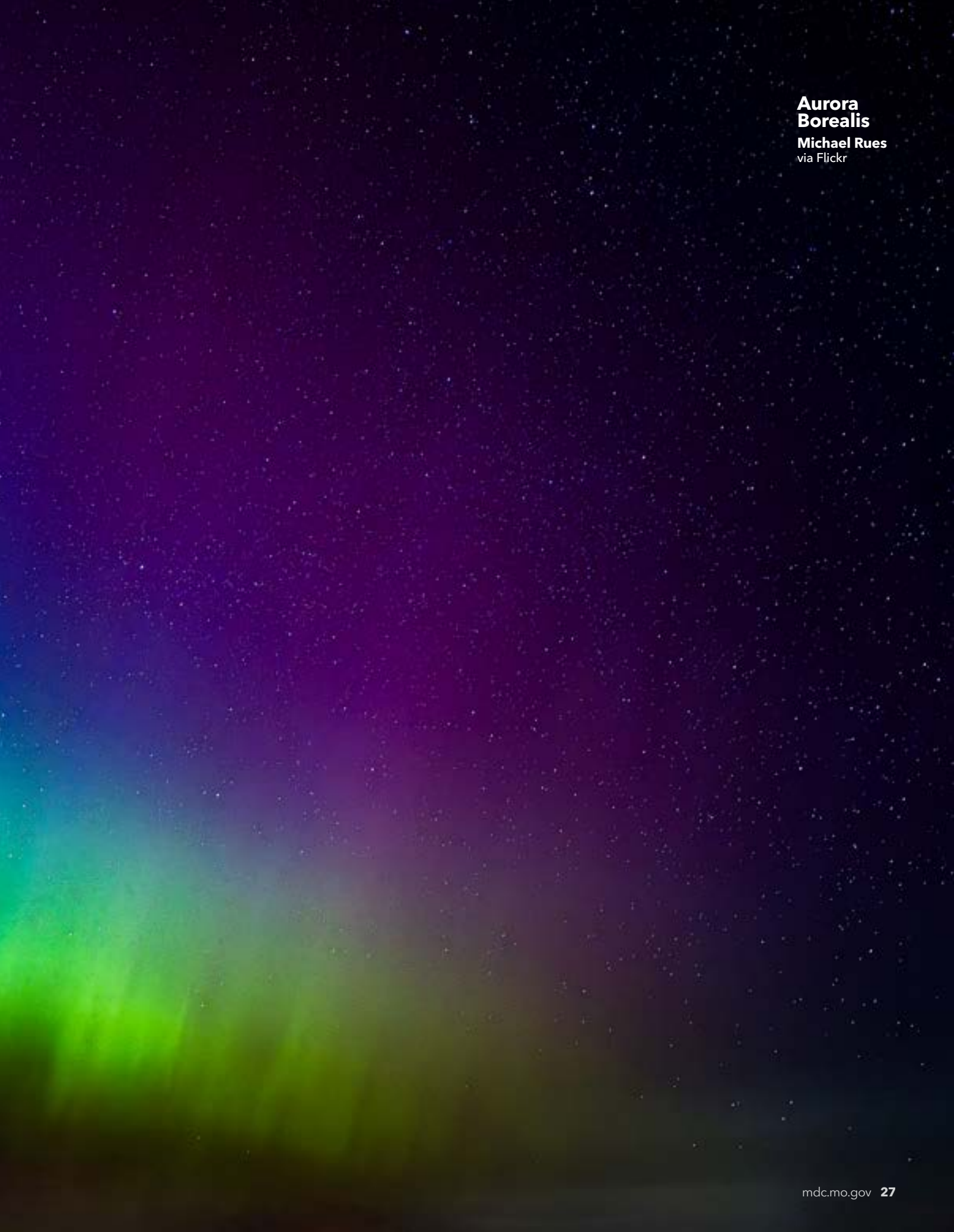


Short-Eared Owl
Lisa Daniels
via Flickr

**Waterfall at
McKenzie Creek**
Mark S. Shuver
via Flickr







**Aurora
Borealis**
Michael Rues
via Flickr

Get Outside

in

DECEMBER

→ Ways to connect with nature



Rainbow trout

VIRTUAL

DEER HUNTING: MEASURING YOUR Trophy

Wednesday • Dec. 14 • 9-11 a.m.

Online only

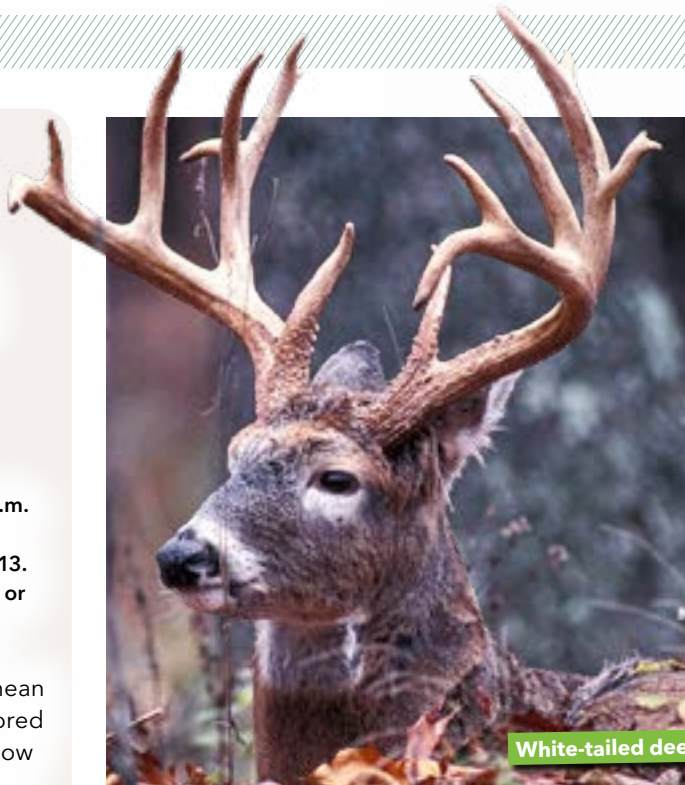
Registration required by Dec. 13.

To register, call 888-283-0364 or

visit short.mdc.mo.gov/4am.

All ages

Ever wonder what people mean when they say their deer scored 170? Have you wanted to know if your harvest was a trophy-setting animal? Join us for this class to learn how to score your harvest and what animals can be scored. This class does not qualify you to become a scorer yourself, an official scorer must score your animal to be eligible for any record setting.



White-tailed deer

Tracking for Tracks

One way to beat cabin fever this winter — especially if you have kids or grandkids — is to get outside after a fresh snow and track some animal tracks.

The outdoors is filled with all kinds of critters. You can make it into a scavenger hunt — how many different prints can you find? Or who can identify the most prints correctly? Make it a mystery — follow the tracks and see where they lead. For help with track identification or more inspiration, visit short.mdc.mo.gov/Ztw.



Oh Deer, It's Cold

White-tailed deer begin to change as the cold sets in. Their color pattern changes from reddish-brown to grayish brown. This is their winter coat, often referred to as their blue coat. The hairs of this coat are long and heavy with many air spaces that act as insulators, helping insure warmth during cold weather. The coat easily repels cold rain and wet snow. They also swim higher during winter due to this coat, which is more buoyant.

Natural Events to See This Month

Here's what's going on in the natural world.



Oyster mushrooms, a choice edible, appear.



Trumpeter swans visit marshes, lakes, and rivers.



Eastern gray squirrels mate.

Catch a Rainbow

The calendar may say winter, but MDC says Missouri is a great place to fish regardless of the season or temperature. The Show-Me State offers an abundance of fishing opportunities, so there's no reason to store your fishing equipment for the season.

Beginning in November, MDC stocks **rainbow trout** in certain lakes and streams across the state. Bass, crappie, walleye, and catfish are some of the fish anglers also go after during Missouri winters. For more information, check out *A Summary of Missouri Fishing Regulations* online at short.mdc.mo.gov/4gy.

VIRTUAL

CONSERVATION FAMILIES:

Where Can I Recycle My Christmas Tree?

Wednesday • Dec. 11 • 12-12:30 p.m.

Online only

Registration required by Dec. 10. To register, call 888-283-0364 or visit short.mdc.mo.gov/4aP.

All ages

There are many real Christmas trees purchased and decorated during the holiday season. Once Christmas is over, what do we do with our trees? We will discuss different ideas and ways to recycle our real Christmas trees.

A Springtime Visitor?

Although most butterflies and moths overwinter as eggs, caterpillars, or pupae, some species overwinter as adults, including **mourning cloaks**, eastern commas, question marks, and gray commas, just to name a few. They fly on warm winter days but need a body temperature of about 65 degrees to take flight. Most butterflies bask in the sunlight to reach this desired temperature, but mourning cloaks can get there just by shivering. The sight of these winged friends can get you daydreaming about spring.

Mourning cloak

SIMPLE OUTDOOR MOMENTS



MOBILE PHONE PHOTOGRAPHY

Spending time in nature
is never wasted.

FIND A PLACE TO GO.

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Places to Go

CENTRAL

Runge Conservation Nature Center

Hike a trail. Climb a turtle.

by Larry Archer

✱ **Meet with family. Hike a trail.** Explore Missouri's many habitats. Climb a turtle. Runge Conservation Nature Center (CNC) offers all of this and more for people seeking nature and outdoor activities over the winter holidays.

Located on 112 acres in Jefferson City, Runge CNC is a destination for families wanting to get outside while showing off a local favorite, said Runge CNC Manager Kevin Lohraff.

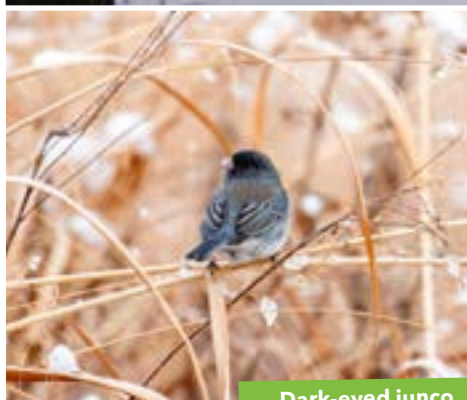
"People like to come here when they have family in from out of town to show off the place that's close to home and also free," Lohraff said.

Runge CNC's 2.4 miles of trails take visitors through a variety of restored habitats.

"One feature of the trails is that you'll be able to be immersed in these different natural communities — prairie, savanna, glade, and forest," he said.

Visitors to Runge CNC's building, which offers 3,000 square feet of permanent exhibits, are greeted by a giant box turtle statue — suitable for climbing.

"We see the paradigm shift from the old museum style, textbook text everywhere in the building to exhibits that are now more experiential," Lohraff said. "We want people to go through and experience what it feels like to be in a forest."



Dark-eyed junco

"It's actually a pretty good place to see wildlife and winter birds because we have diverse habitats and a big viewing area with so many different bird feeders."

—Runge Conservation Nature Center Manager Kevin Lohraff

DAVID STONNER



A decommissioned fire tower, originally in service in Rocky Mount, was taken down and reassembled at Runge Conservation Nature Center (CNC), where it now stands watch over the area's many restored habitats. (Inset) Many winter bird species, such as this dark-eyed junco, can be found at Runge CNC.



RUNGE CONSERVATION NATURE CENTER

consists of 112 acres in Cole County. From Highway 50 in Jefferson City, take Highway 179 north 0.25 mile to the area entrance.

38.588, -92.2308

short.mdc.mo.gov/4RA 573-526-5544

WHAT TO DO WHEN YOU VISIT



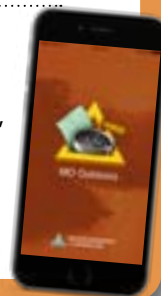
Birdwatching The eBird list of birds recorded at Runge CNC is available at short.mdc.mo.gov/4RM.



Hiking Five hiking trails, including two woodchipped and three hard surface trails, totaling 2.4 miles.

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Yellow-rumped warbler

WHAT TO LOOK FOR WHEN YOU VISIT



White-tailed deer



Wild turkey



Hairy woodpecker



Cedar waxwing



Tufted Titmouse

Baeolophus bicolor

Status

Common permanent resident

Size

Length: 6½ inches

Distribution

Statewide

Although the tufted titmouse is a year-round resident, it is most noticeable during the winter months. It is common amongst the trees in forests, woodlands, parks, and in suburban areas. With its loud voice, it is often the most conspicuous member of a winter flock. The upperparts of an adult tufted titmouse are bluish gray. There is a crest on the head, and the forehead is black. Its underparts are white, with buff sides and flanks.



LIFE CYCLE

The tufted titmouse is a cavity nester that cannot excavate its own holes, so it relies on natural holes, nest boxes, or cavities left by woodpeckers. Once-yearly broods are usually three to nine eggs that are incubated in about two weeks. Young fledge two weeks later.

FOODS

Titmice forage for insects, seeds, and berries, and they are frequent visitors to bird feeders. Many birds gather into foraging flocks of mixed species in the winter months. These flocks often contain titmice, chickadees, nuthatches, woodpeckers, and more. Each species forages in a particular part of a tree or shrub, which keeps them from competing for food.

HUMAN CONNECTIONS

Titmice are drab in color but not in spirit. As common visitors at bird feeders, titmice bring cheer to snowbound Missourians. Their ringing *peter-peter-peter* is a sign that spring is on the way.

Outdoor Calendar

❖ MISSOURI DEPARTMENT OF CONSERVATION ❖

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FISHING

Black Bass

Impounded waters and non-Ozark streams:
Open all year

Most streams south of the Missouri River:

- ▶ Catch-and-Keep:
May 25, 2024–Feb. 28, 2025

Nongame Fish Giggling

Streams and impounded waters,
sunrise to midnight:
Sept. 15, 2024–Feb. 15, 2025

Paddlefish

On the Mississippi River:
Sept. 15–Dec. 15, 2024

Trout Parks

During the catch-and-release season,
state trout parks (except Marmec Spring
Park) are open only Friday–Monday.

Catch-and-Release:
Nov. 8, 2024–Feb. 10, 2025

TRAPPING

Badger, Gray Fox, Red Fox

Nov. 15, 2024–Jan. 31, 2025

Beaver, Nutria

Nov. 15, 2024–March 31, 2025

Bobcat, Coyote, Mink, Muskrat, Opossum, Raccoon, River Otter, Striped Skunk

Nov. 15, 2024–Feb. 28, 2025

Rabbits

Nov. 15, 2024–Jan. 31, 2025

For complete information about seasons, limits, methods, and restrictions, consult the *Wildlife Code of Missouri* at short.mdc.mo.gov/Zib. Current hunting, trapping, and fishing regulation booklets are available from local permit vendors or online at short.mdc.mo.gov/ZZf.



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MO Hunting makes it easy to view permits, electronically notch them, and Telecheck your harvest. MO Fishing lets you view permits, find great places to fish, and ID your catch. Get both in Android or iPhone platforms at short.mdc.mo.gov/Zi2.

HUNTING

Badger, Gray Fox, Red Fox

Nov. 15, 2024–Jan. 31, 2025

Bobcat, Opossum, Raccoon, Striped Skunk

Nov. 15, 2024–Feb. 28, 2025

Coyote

Restrictions apply during April, spring turkey season, and firearms deer season.
Open all year

Crows

Nov. 1, 2024–March 3, 2025

Deer

Archery:
Nov. 27, 2024–Jan. 15, 2025

Firearms:

- ▶ CWD Portion (open areas only):
Nov. 27–Dec. 1, 2024
- ▶ Late Youth Portion (ages 6–15):
Nov. 29–Dec. 1, 2024
- ▶ Late Antlerless Portion (open areas only):
Dec. 7–15, 2024
- ▶ Alternative Methods Portion:
Dec. 28, 2024–Jan. 7, 2025

Elk*

Only hunters selected through a random drawing may participate in this hunting season.

Firearms:

Dec. 14–22, 2024

Groundhog (Woodchuck)

May 6–Dec. 15, 2024

Pheasant

Nov. 1, 2024–Jan. 15, 2025

Quail

Nov. 1, 2024–Jan. 15, 2025

Rabbits

Oct. 1, 2024–Feb. 15, 2025

Squirrels

May 25, 2024–Feb. 15, 2025

Turkey

Fall Archery Portions:
Nov. 27, 2024–Jan. 15, 2025

Waterfowl

See the Migratory Bird and Waterfowl Hunting Digest or visit short.mdc.mo.gov/ZZx for more information.

Wilson's (Common) Snipe

Sept. 1–Dec. 16, 2024

Woodcock

Oct. 18–Dec. 1, 2024



ILLUSTRATION: MARK RATHIEL



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Few things are more serene than nature on a crisp winter day. It's a great time to bundle up and get out there, away from the hustle and bustle of daily life. Hike a snowy trail, watch the squirrels scurry about, or simply just be, allowing the warmth of the sun to take away the winter chill. What will you discover?

📷 by **Jim Rathert**

Free to Missouri households

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